

FIG. 1

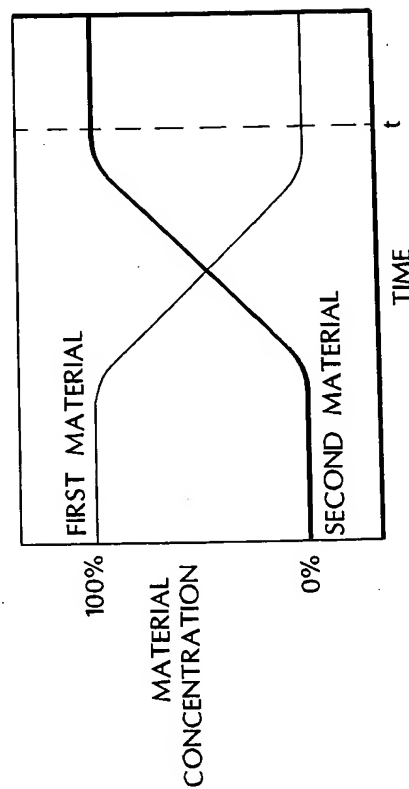


FIG. 6

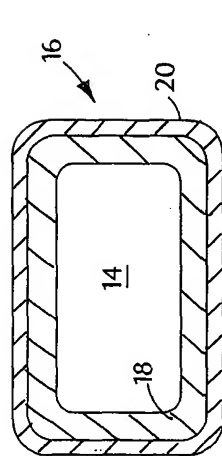


FIG. 2

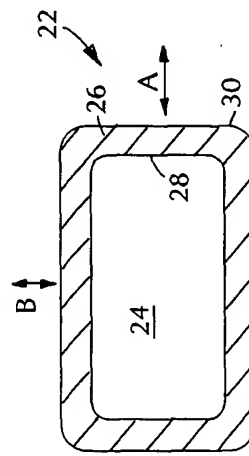


FIG. 3

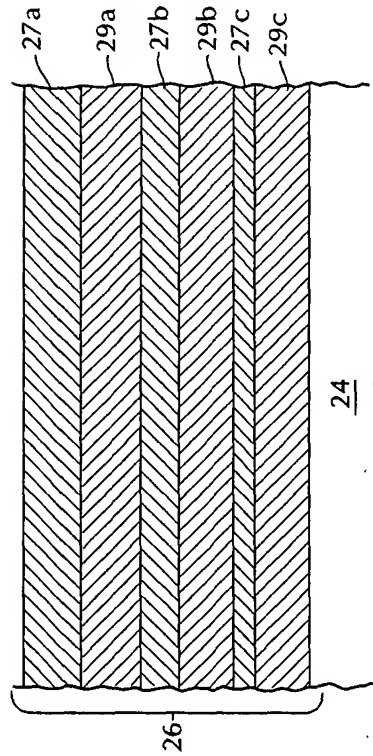
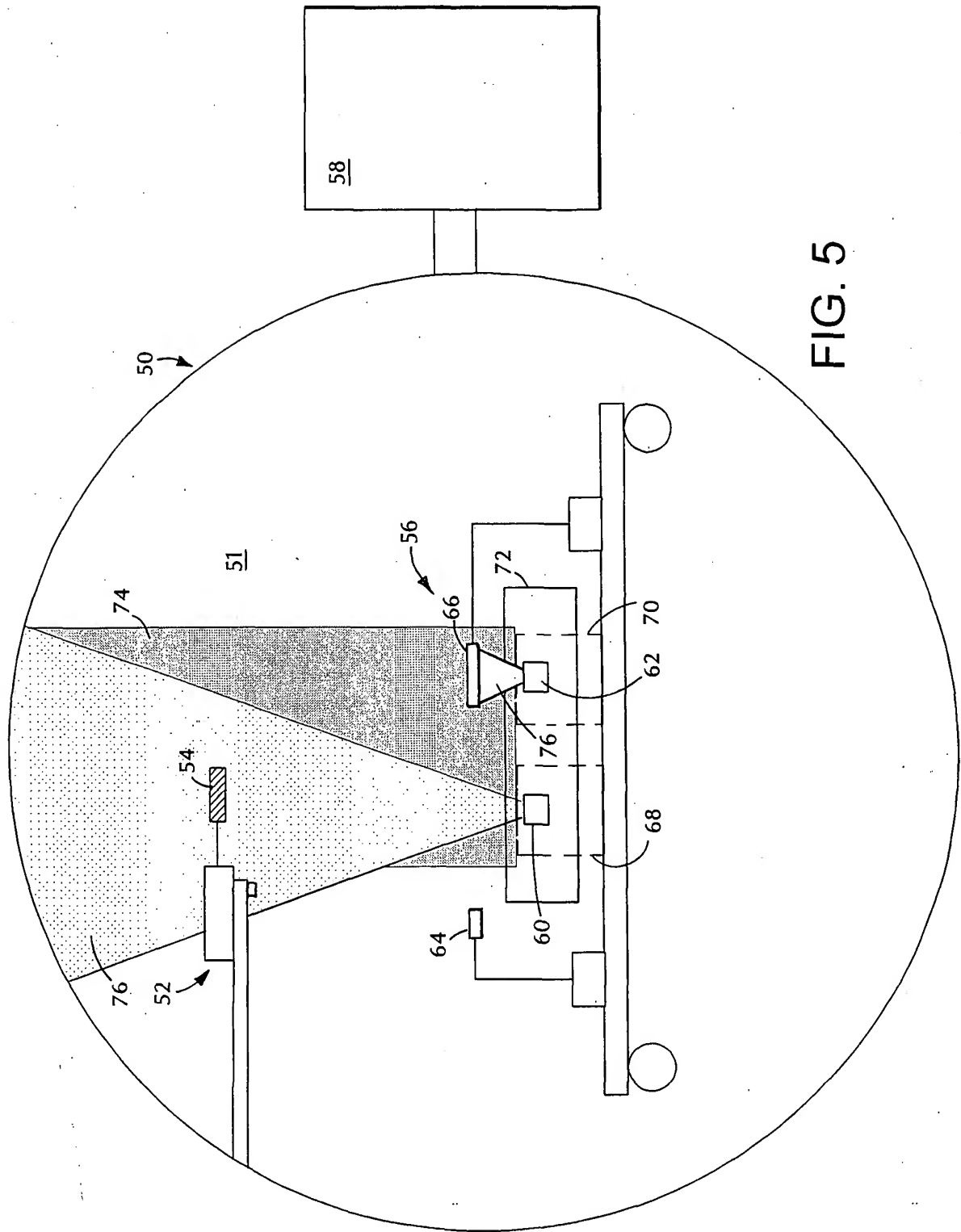


FIG. 4



Sputter Cleaning Parameters (Ion Beam)		Deposition Sputtering Parameters (Ion Beam)		Deposition Parameters (Electron Beam Evaporation)	
Gas type	Argon	Gas type	Argon	Pressure	$\leq 1 \times 10^{-4}$ Torr
Flow	2.5-3.5 sccm	Flow	2.5-3.5 sccm	Deposition rate	3.5-3.5 Å/sec
Energy	1-2 keV	Energy	1-3 keV	Energy	8 keV
Power	58-65 Watts	Power	58-65 Watts	Power	2.9 kW
Current	10-35 mA	Current	15-35 mA	Current	0.375 A
Time	20-30 min				

FIG. 7

Sputter Cleaning Parameters (Ion Beam)		Deposition Sputtering Parameters (Ion Beam)		Deposition Parameters (Electron Beam Evaporation)	
Gas type	Argon	Gas type	Argon	Pressure	3.5×10^{-5} Torr
Flow	2 sccm	Flow	2 sccm	Deposition rate	4-5 Å/sec
Energy	2 keV	Energy	2 keV	Energy	8 keV
Power	60 Watts	Power	80 Watts	Power	1.76 kW
Current	15 mA	Current	18 mA	Current	0.226 A
Time	20 min				

FIG. 8

Sputter Cleaning Parameters (Ion Beam)		Deposition Sputtering Parameters (Ion Beam)		Deposition Parameters (Electron Beam Evaporation)	
Gas type	Argon	Gas type	Argon	Pressure	1.2×10^{-4} Torr
Flow	3 sccm	Flow	2 sccm	Deposition rate	2-3 Å/sec
Energy	1 keV	Energy	1 keV	Energy	7.5 keV
Power	60 Watts	Power	60 Watts	Power	2.0 kW
Current	25 mA	Current	32 mA	Current	0.15 A
Time	30 min				

FIG. 9